

CLAIMS

1. An electric machine, comprising:
a stator comprising a plurality of stator teeth;
a rotor mounted for rotation with respect to the stator
a first stator winding carried by a first one of the stator teeth and a second
stator winding carried by a second one of the stator teeth; and
a spacer received between and in contact with the first stator winding and
the second stator winding.
2. The electric machine of claim 1 wherein the spacer is of a sufficient
thickness to displace at least one of the first stator winding and the second stator
winding.
3. The electric machine of claim 1 wherein spacer is of a sufficient
thickness to displace at least one of the first stator winding and the second stator
winding toward a respective one of the stator teeth that carries the respective one of the
first and the second stator windings with respect to an undisplaced position.
4. The electric machine of claim 1 wherein the spacer is in at least
one of conductively thermal and convectively thermal contact with a fluid cooled jacket.
5. The electric machine of claim 1 wherein the spacer comprises an
electrically insulative and thermally conductive material.
6. The electric machine of claim 1, further comprising:
a fluid cooled jacket integral with a stator.

7. The electric machine of claim 1 wherein the spacer comprises a composite sheet material formed from a number of laminated textile sheets comprising an epoxy matrix.

8. The electric machine of claim 1, further comprising:
a stator slot formed between the first and the second stator teeth; and
an adhesive received in the stator slot in contact with the spacer.

9. A method for use with an electric machine, comprising:
applying an external force to deform a stator winding toward a surface of a stator tooth while the electric machine is in use.

10. The method of claim 9 wherein the applying an external force to deform a stator winding toward a surface of a stator tooth comprises interposing a spacer between a first stator winding and a second stator winding.

11. The method of claim 10 wherein the interposing a spacer between a first stator winding and a second stator winding comprises tapping the spacer into place.

12. The method of claim 10 wherein the interposing a spacer between a first stator winding and a second stator winding further comprises:
applying an adhesive to the spacer.

13. The method of claim 9 wherein the applying an external force to deform a stator winding toward a surface of a stator tooth comprises:
pushing at least a portion of the stator winding into direct physical contact with the stator tooth.

14. A method comprising:

providing a stator comprising a plurality of stator teeth;

mounting a rotor for rotation with respect to the stator;

wrapping a first stator winding about at least a portion of a first one of the stator teeth;

wrapping a second stator winding about at least a portion of a second one of the stator teeth; and

placing a spacer in physical contact with at least two the first and the second stator windings of an electric machine to provide a thermal path to a heat sink.

15. The method of claim 14 wherein placing a spacer in physical contact with at least the first and the second stator windings of an electric machine comprises placing the spacer in at least one of a conductive and a convective thermal communication with the heat sink.

16. The method of claim 14 wherein placing a spacer in physical contact with at least the first and the second stator windings of an electric machine comprises placing the spacer such that at least one of the first and the second stator windings of the electric machine is moved into nearer thermal proximity to the heat sink.

17. The method of claim 14 wherein placing a spacer in physical contact with at least the first and the second stator windings of an electric machine comprises placing the spacer such that at least one of the first and the second stator windings is moved into closer physical proximity with a surface of the respective one of the first and the second stator tooth around which the stator winding is wrapped.

18. The method of claim 14 wherein the heat sink comprises a fluid cooled jacket.